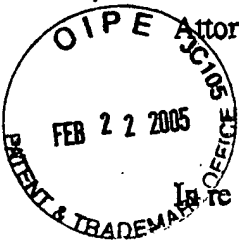


~~Attorney Docket No. 30014200-1091~~

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Balaji Raghunathan, et al.

Application No. 09/747,426

Filed: December 22, 2000

For: **SERVER FRAMEWORK FOR A DATABASE
SERVER**

Group Art Unit: 2143

Examiner: George C. Neurauter

**Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

DECLARATION OF BALAJI RAGHUNATHAN UNDER 37 C.F.R. §1.131

Dear Sir:

1. I, Balaji Raghunathan, am one of the inventors of the subject matter which is claimed and for which a patent is sought on the invention titled "Server Framework For A Database Server," having the serial number 09/747,426 and filed on December 22, 2000 (the "426 Application").
2. In the Office Action having a mailing date of October 21, 2004, the Examiner presented the reference Grant (U.S. Patent Pub. No. 2002/0099738, hereinafter the "Grant Application") as prior art under 35 U.S.C. §102(e) to reject pending claims 1-35.
3. I have reviewed and understand the contents of the cited Grant Application.
4. This written document is a declaration of prior invention to overcome the cited Grant Application. As a co-inventor of the subject matter of the rejected claims, I hereby submit this oath to overcome the Grant Application.
5. As indicated on the face of the Grant Application, the earliest possible date on which the Grant Application was available as prior art under 35 U.S.C. §102(e) was November 22,

Declaration of Balaji Raghunathan
Application No. 09/747,426

2000, namely, the priority filing date of the related U.S. Provisional Application No. 60/252,483. Accordingly, the earliest possible date to overcome is the effective filing date of November 22, 2000.

6. On information and belief, I first invented the subject matter of the '426 Application before November 22, 2000 as evidenced by Invention Disclosure Report No. P5745 ("the Report"). Exhibit A is a copy of the original Report as submitted by me to Sun Microsystems, Inc., my employer and the assignee of the '426 Application. The submission date, conception date, and first disclosure date have been redacted from the exhibit.

7. The Report discloses the subject matter of at least claims 1, 8, 15, 22, and 29 of the '426 Application. For example, the claimed concept of a server to handle one or more client requests includes obtaining one or more client requests for hierarchically organized data at a server, dividing the client requests into one or more smaller units (*e.g.*, via a "thread pool object"), and servicing the units in order is disclosed in the Report's "Written Description". (*See* Exhibit A, page 3). Thus, the Report supports conception of the claimed invention on or before November 22, 2000.

8. In addition, the Report expressly states that the invention was actually reduced to practice on or before the date on which the Report was prepared. (*See* Exhibit A, page 4). Furthermore, constructive reduction to practice was achieved at least by December 22, 2000, the filing date of the '426 Application.

9. The time period taken for completion of the '426 application for filing constitutes reasonable diligence. During this time period, I, the other co-inventor of the '426 application, and our representatives worked reasonably hard and expeditiously to process the invention disclosure and prepare, execute, and file the '426 Application. Accordingly, there was reasonable diligence from on or before the November 22, 2000 effective filing date of the Grant Application to the December 22, 2000 filing of the '426 Application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that

Declaration of Balaji Raghunathan
Application No. 09/747,426

such willful false statements may jeopardize the validity of the application or any patent issued thereon.

R. Balaji
Balaji Raghunathan

2/17/2005
Date

From: [REDACTED]
To: balaji.raghunathan@Eng.Sun.COM
Cc: [REDACTED]
Subject: P5745 - Invention Disclosure - Raghunathan
Date: [REDACTED]

Balaji,

Here's a copy of your disclosure with the Sun reference number assigned to it (P5745). Please use this reference number when referring to this matter in the future. Should you have questions regarding the status of this disclosure, please contact your Managing Sun Attorney (listed below). Questions regarding any patent incentive payments should be directed to Kristine Bombaci, Incentive Program Specialist. Thank you again for submitting this disclosure!

Kristine:

Approved for bonus?

- 1) Balaji Raghunathan
- 2) Neelam Vaidya

Note to the inventor(s): If approved, the incentive transaction will be processed two weeks from today. This means that your incentive payment may not show up until the pay period after the processing date.

RAGHUNATHAN, BALAJI
VAIDYA, NEELAM

balaji.raghunathan@Eng
neelam.vaidya@Eng

----- Begin Forwarded Message -----

X-Unix-From: nobody@patents.Corp.Sun.COM
Date: [REDACTED]
To: undisclosed-recipients:;

NEW INVENTION DISCLOSURE BY BALAJI RAGHUNATHAN
(balajir@eng.sun.com)

ATTORNEY-CLIENT PRIVILEGED COMMUNICATION

Here is your copy of the new Invention Disclosure that you have just submitted. We will contact you shortly about preparing the patent application.

Thank you, BALAJI RAGHUNATHAN, for submitting this disclosure.

Generated by the SunWeb Patent Disclosure Form, v. 1.5
Found at: <http://patents.corp>

This was the invention titled: Socket & Thread pooling for the registry server framework based on XML as the application level protocol..

This is a new disclosure from Webtop Software: DFS

P5745 - Invention Disclosure - Raghunathan

EXHIBIT

tabbles

A

Attorney Responsibility:
Sun Primary Attorney: Anirma Gupta
Managing Sun Attorney: Elaine Lee

Note that the following sections are not in the same order
as you entered on the form.

8. Division - Business Unit

Webtop Software: DFS

8B. Technical Category

The Technical Category is:

9. DEPARTMENT, etc.

Department:

THIN CLIENT APPL MGMT & D
Manager: John Pampuch
Project: Registry server for starportal
Product(s): Configuration Server v 1.0

1. TITLE: Socket & Thread pooling for the registry server framework based on
XML as the application level protocol.

This invention relates primarily to: SOFTWARE

2. BACKGROUND AND RELATED ART

A. The technical problem is as follows:

The coding for this problem is to be done using Java 2
as the development platform.
Client user sessions has be created and maintained
for every single client that wishes to send requests
intended to manage its preference and configuration
information at the backend server databases.

The session handling has to be done in such a way that
requests are serviced fairly to all the clients concerned.
The request-response latency should be optimal.
The performance of the server should be scalable with multi
processor systems.
The CPU usage should be optimal.

B. The Closest Related Art is as follows:

references:

Concurrent programming in Java - [REDACTED]
Java performance and scalability - [REDACTED]

3. DRAWING(S)

Drawings for this invention are AVAILABLE.

Comments about providing drawings:

4. WRITTEN DESCRIPTION

The invention is described as follows:

The focus of the work is to develop a efficient and scalable server framework for servicing client requests coming in XML format using TCP/IP as the communication protocol.

It involves creating and maintaining sessions for every single client wishing to use the server. It is done using a thread pool object which would assign read request tasks to worker threads. The worker thread would pick up the request from the next available socket (dedicated to a particular user session) with data to be read in.

All of the data available in a socket is not read in. Instead the XML representation of the data is used in taking one specific unit of the series of requests coming in to a socket at any time. Each request makes up an XML envelope. The worker thread would read and service only one envelope at a time. This would help in freeing up the worker to read request from another socket instead of getting tied to one particular socket. This in turn results in balanced and fair servicing of requests coming in overall in to the socketpool.

The readrequests are given to the worker threads using a event queuing model. The Socketpool would place a read event for a socket in to the thread pools event queue. The thread pool coordinates the assigning of the read request tasks depending on the number of free worker threads that are available and the number of tasks that are currently waiting in the threadpool's event queue. (The event put and take model is implemented using the FIFO semaphore model where the thread that has been waiting for the maximum period of time is given the maximum priority for picking up a task.)

configuring the number of worker thread objects would help in tuning the server for optimum performance based on the number of processors available in the hardware being used. It will be possible to achieve near linear scalability with the number of processors available in the server system.

5. CONCEPTION OF INVENTION

Date of conception:

Date of first written description:

Has the invention been reduced to practice? Yes.

7. INVENTOR(S)

INVENTOR 2:
EIN: 55571
Name: Neelam Vaidya
Address: 616 Stendhal Ln. , Cupertino, CA 95014
Citizenship: USA
Payroll:

INVENTOR 4:
EIN:
Name:
Address:
Citizenship:
Payroll:

COMMENTS on inventors or inventorship:

Alpha Testing: [REDACTED]
Beta Testing: [REDACTED]
General release or sale: [REDACTED]

P5745 – Invention Disclosure – Raghunathan

Testing ongoing for a early access edition of the StarPortal suite which would use the registry server for storing preference/configuration data for the star clients.

11. DISCLOSURE OF INVENTION

Has there been any disclosure of the invention? NO

12. INTERNAL DISCLOSURE(S)

First disclosure date (internal at Sun):
Name of first discloser at Sun: Development & QA teams in US & Germany.

COMMENTS about first internal disclosure:

13. ARTICLE(S)

Have any articles been published? NO

DETAILS about publication of article(s):

14. ADVERTISEMENTS, PRESS RELEASES AND PRODUCT ANNOUNCEMENTS

Any ads, press releases or product announcements? NO

DETAILS about any ads, press releases and product announcements:

15. OUTSIDE DISCLOSURE(S)

Have there been any disclosures outside Sun? NO

Were all outside disclosures under NDA?

DETAILS about any disclosures outside Sun:

16. TRADE SHOWS AND CONFERENCES

Are there any upcoming trade shows or conferences? YES

DETAILS about upcoming trade shows and/or conferences:

Balaji Vasudevan

17. OUTSIDE COUNSEL:

No

18. RELATED CASES

No

ADDITIONAL COMMENTS BY INVENTOR:

This invention disclosure was submitted by BALAJI RAGHUNATHAN, whose email
address is:
balajir@eng.sun.com

Server protocol: HTTP/1.0
Remote host:
Remote IP address: 129.144.172.53

----- End Forwarded Message -----

P5745 - Invention Disclosure - Raghunathan